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# Data Quality Reporting Framework using Axon and DEQ

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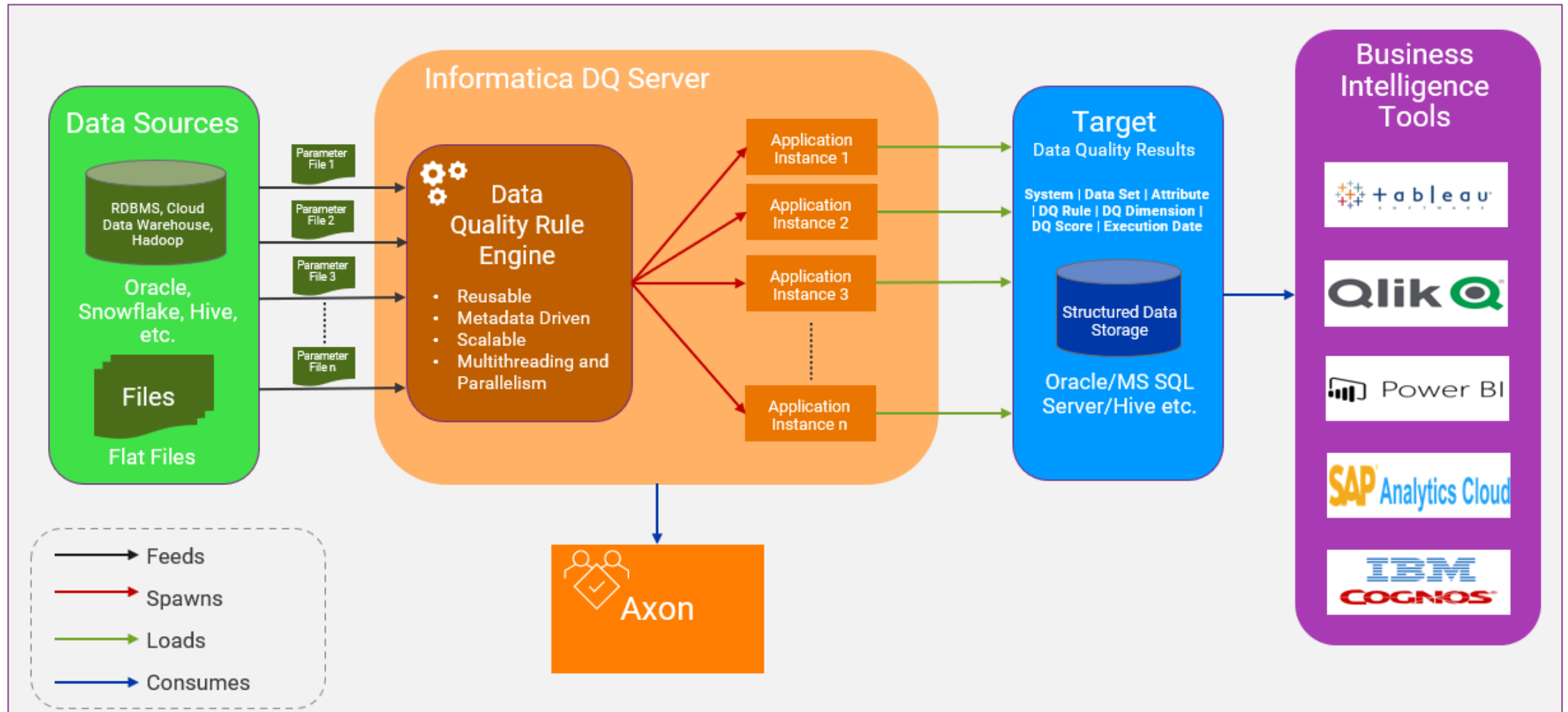
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# Solution Overview

- This solution requires Informatica Data Quality and Informatica Axon.
- It leverages Informatica Data Quality features like Mapplets, Dynamic Mapping, Workflow, Application to create reusable, parameterized and meta driven to generate Data Quality results and perform REST API call to push the Data Quality scores to Informatica Axon.
- Once the solution is deployed as an Application in Informatica, it can be scheduled to run on periodic basis like Daily, Monthly, etc.
- Generated Data Quality results can be exposed to 3<sup>rd</sup> party Business Intelligence tools like Tableau, Power BI, Qlik etc. which can help with creating customized dashboards and reports.

# Solution Architecture



# Solution High Level Implementation Steps

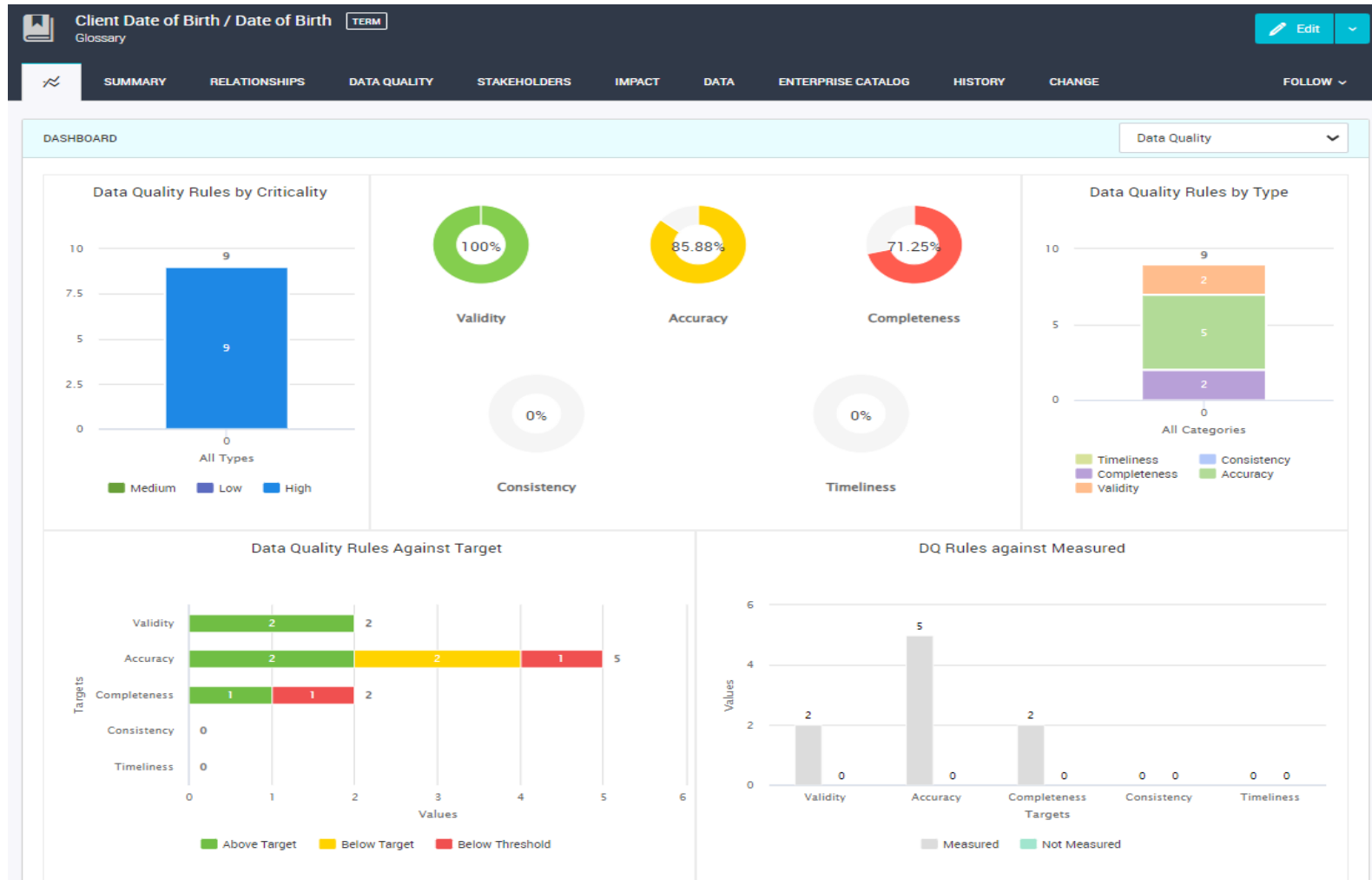
- **Step-1:** Capture Data Quality rules and its related business assets like System Name, Data Set, Attribute, Glossary etc. in Axon.
- **Step-2:** Create reusable Data Quality Rules as Mapplets in Informatica Developer tool.
- **Step-3:** Create parameterized and dynamic Data Quality Mapping which read data from source table/file and generates Data Quality result table.
- **Step-4:** Create a mapping to generate Axon Tokens using Axon credentials.
- **Step-5:** Create a mapping that reads Data Quality results table data and generate JSON file containing required details like Execution Time, DQ Score, Exception Count, Identity etc. to push DQ Results to Axon.
- **Step-6:** Create a mapping that reads JSON file data and make an API call to Axon to push the DQ Results.
- **Step-7:** Create workflow with all the mapping tasks created and connect them as per their dependency and deploy as application.

# Sample Data Quality Result

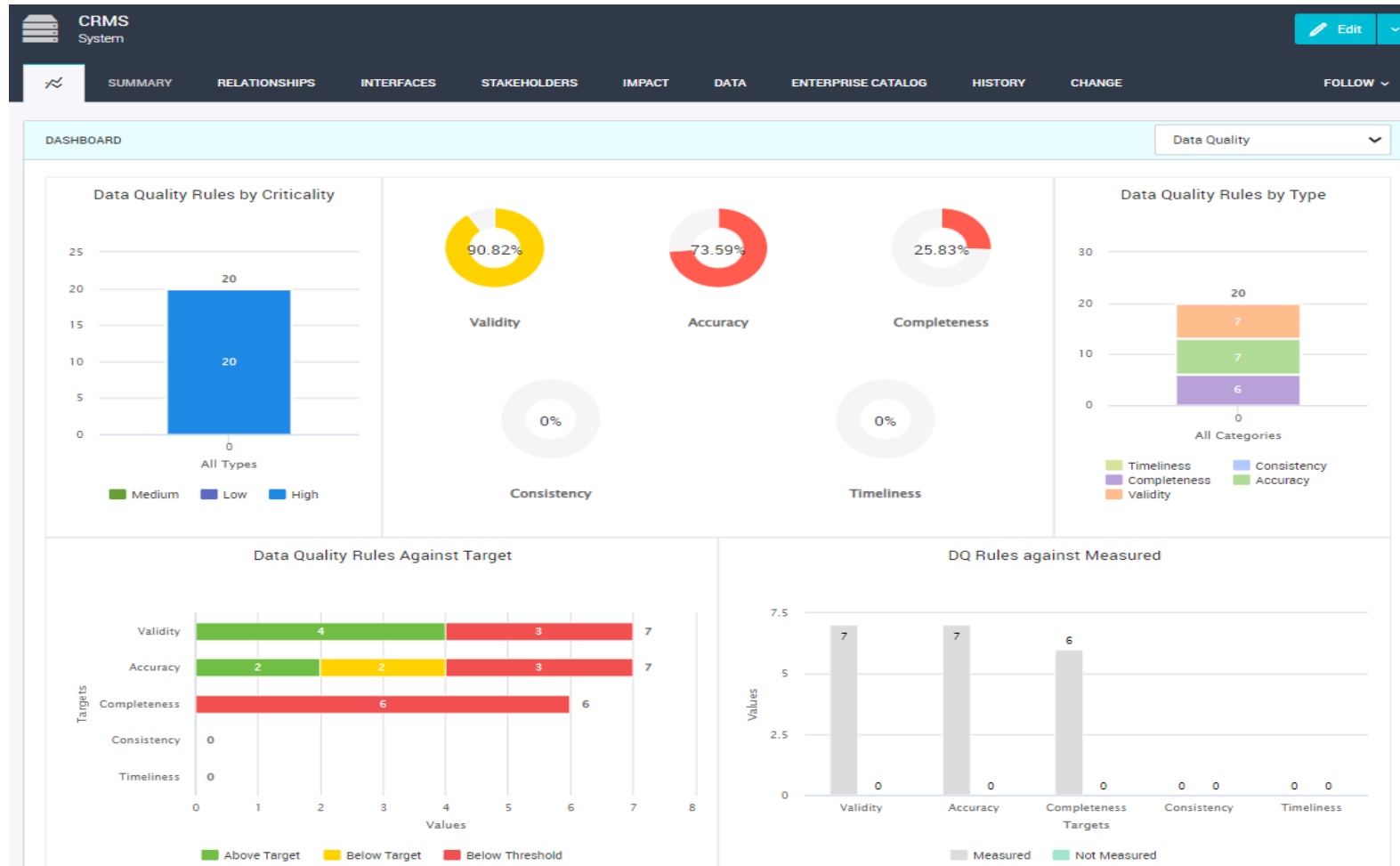
DQ\_RESULTS | Enter a SQL expression to filter results (use Ctrl+Space)

Grid	ABC SYSTEM	ABC DATA_SET	ABC ATTRIBUTE	ABC DQ_RULE_NAME	ABC DQ_DIMENSION	ABC FAIL_COUNT	ABC PASS_COL	ABC TOTAL_COL	ABC DQ_PERCENTAGE	ABC EXECUTION_DATE	ABC DQ_SYST
1	CRMS	CUSTOMER	CU_BIRTHDAY	Customer_Birth_Birth_Date_Accuracy_Check_1	Accuracy	1	16	17	94.1176	2022_06_15	Informatica
2	CRMS	CUSTOMER	CU_BIRTHDAY	Customer_Birth_Birth_Date_Accuracy_Check_2	Accuracy	1	16	17	94.1176	2022_06_15	Informatica
3	CRMS	CUSTOMER	CU_BIRTHDAY	Customer_Birth_Birth_Date_Accuracy_Check_3	Accuracy	10	7	17	41.1765	2022_06_15	Informatica
4	CRMS	CUSTOMER	CU_BIRTHDAY	Customer_Birth_Birth_Date_Completeness_Check	Completeness	23	17	40	42.5	2022_06_15	Informatica
5	CRMS	CUSTOMER	CU_BIRTHDAY	Customer_Birth_Birth_Date_Validity_Check_1	Validity	0	17	17	100	2022_06_15	Informatica
6	CRMS	CUSTOMER	CU_BUSINESS_KIN	Customer_Business_Type_Completeness_Check_1	Completeness	34	6	40	15	2022_06_15	Informatica
7	CRMS	CUSTOMER	CU_PASSBOOK	Customer_Identification_Document_Number_Cor	Completeness	34	6	40	15	2022_06_15	Informatica
8	CRMS	CUSTOMER	CU_PASSBOOK	Customer_Identification_Document_Number_Val	Validity	1	5	6	83.3333	2022_06_15	Informatica
9	CRMS	CUSTOMER	CU_PASSBOOK	Customer_Identification_Document_Number_Val	Validity	1	5	6	83.3333	2022_06_15	Informatica
10	CRMS	CUSTOMER	CU_PASSBOOK	Customer_Identification_Document_Number_Val	Validity	1	5	6	83.3333	2022_06_15	Informatica
11	CRMS	CUSTOMER	CU_CITIZENSHIP	Customer_Nationality_Code_Accuracy_Check_1	Accuracy	4	2	6	33.3333	2022_06_15	Informatica
12	CRMS	CUSTOMER	CU_CITIZENSHIP	Customer_Nationality_Code_Completeness_Chec	Completeness	34	6	40	15	2022_06_15	Informatica
13	CRMS	CUSTOMER	CU_PASSBOOK	Due_Diligence_Risk_Rating_Completeness_Check	Completeness	34	6	40	15	2022_06_15	Informatica
14	CRMS	CUSTOMER	CU_ENG_NAME	English_Name_Accuracy_Check_1	Accuracy	8	13	21	61.9048	2022_06_15	Informatica
15	CRMS	CUSTOMER	CU_ENG_NAME	English_Name_Accuracy_Check_2	Accuracy	1	20	21	95.2381	2022_06_15	Informatica
16	CRMS	CUSTOMER	CU_ENG_NAME	English_Name_Accuracy_Check_3	Accuracy	1	20	21	95.2381	2022_06_15	Informatica
17	CRMS	CUSTOMER	CU_ENG_NAME	English_Name_Completeness_Check_1	Completeness	19	21	40	52.5	2022_06_15	Informatica
18	CRMS	CUSTOMER	CU_ENG_NAME	English_Name_Validity_Check_1	Validity	1	20	21	95.2381	2022_06_15	Informatica
19	CRMS	CUSTOMER	CU_ENG_NAME	English_Name_Validity_Check_2	Validity	1	20	21	95.2381	2022_06_15	Informatica

# Axon Data Quality Dashboards - Glossary

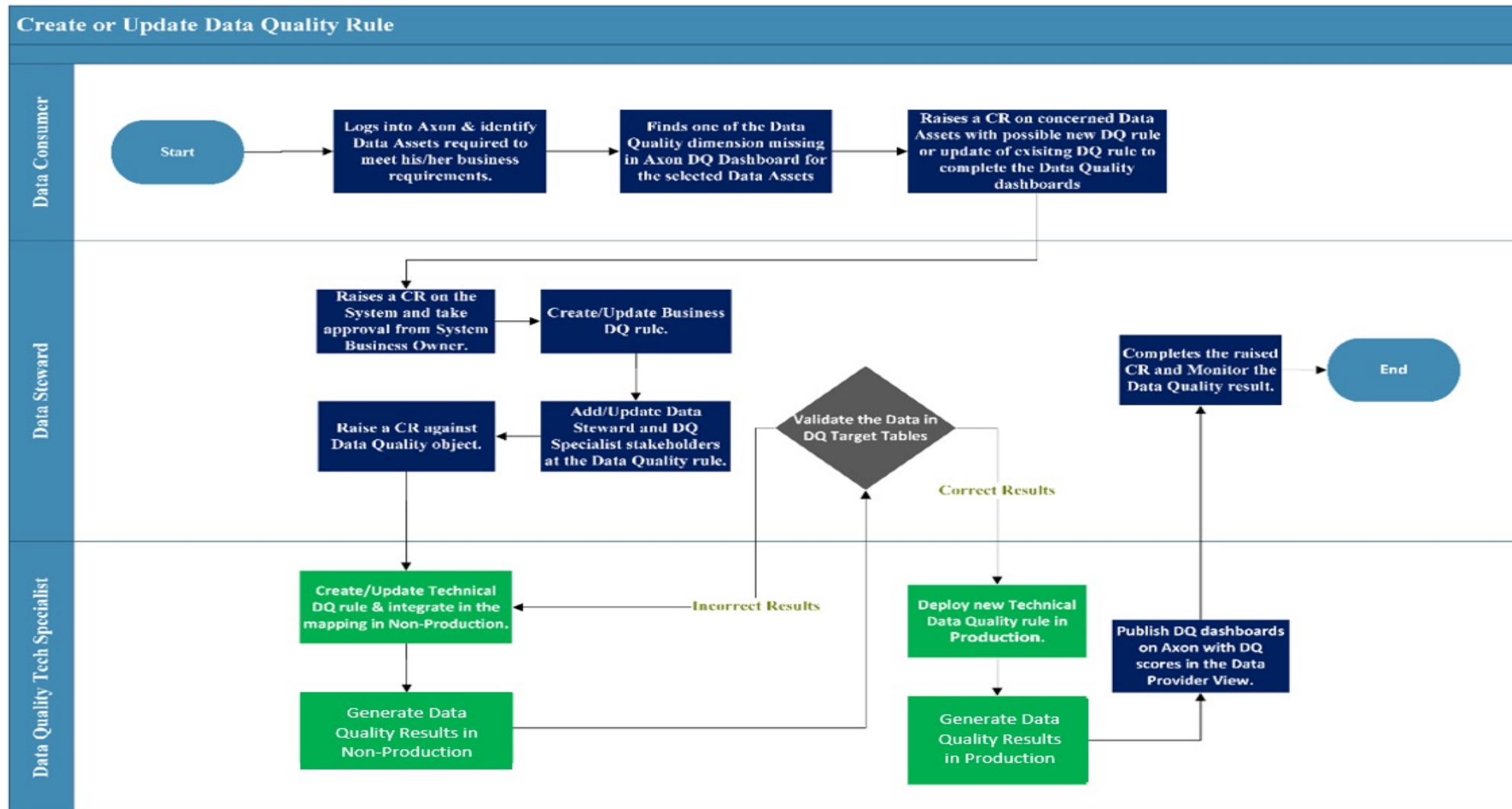


# Axon Data Quality Dashboards - System





# Sample Target Operating Model



# Demo

# Q&A

Thank you

